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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 W. JACKSON BLVD
CHICAGO, IL 60604

21 MAY 2012

MEMORANDUM

SUBJECT: ENFORCEMENT ACTION MEMORANDUM - Determination of Threat to Public Health and the Environment and Selection of Time-Critical Removal Actions at the Former Calumet and Hecla, Inc. (C & H) Power Plant Site, Lake Linden, Houghton County, Michigan (Site ID #B5WF)

FROM: Ralph Dollhopf, OSC
Emergency Response Branch 1

THRU: Jason H. El-Zein, Chief
Emergency Response Branch 1

TO: Richard C. Karl, Director
Superfund Division

I. PURPOSE

The purpose of this memorandum is to document the determination of an imminent and substantial threat to public health, welfare, and the environment posed by the presence of uncontrolled hazardous substances, and document your approval of the time-critical removal action to be performed at the Former Calumet and Hecla, Inc. Power Plant Site (or the Site) located in Lake Linden, Houghton County, Michigan.

The response actions proposed herein are necessary to mitigate threats to public health, welfare, and the environment posed by the presence of uncontrolled hazardous substances at the Site, including asbestos containing material (ACM) on the surface soil, interior building foundations and exterior debris piles, and inorganic contaminants of concern in surface soils, including arsenic, antimony, copper, iron, and lead. Polychlorinated biphenyls (PCBs) are also suspected to be present in a currently inaccessible basement in a dilapidated building at the Site. The presence of the above hazardous substances at the Site has been documented by U.S. Environmental Protection Agency.

The response actions proposed herein include the following: developing and implementing a Health and Safety Plan, including an Air Monitoring Plan and Site Emergency Contingency Plan; developing and implementing a Work Plan, including a Site Security Plan; identifying, consolidating, containing, packaging, and ultimately

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removing and disposing off-site the hazardous substances, pollutants and contaminants to an approved disposal facility in accordance with EPA's Off-Site Rule (40 C.F.R. § 300.440).

This time-critical removal action will be conducted in accordance with Section 104(a)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9604(a)(1), to abate or eliminate the immediate threat posed to public health and/or the environment by the presence of the hazardous substances at the Site. The uncontrolled conditions of the hazardous substances present at the Site and the potential threats they present require that this action be classified as a time-critical removal action.

This removal is considered nationally significant or precedent-setting because asbestos is a primary contaminant of concern. The Site is not on the National Priorities List (NPL). The response activities will require approximately 160 on-site working days to complete.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID:	MIN000510600
RCRA ID:	Not applicable (NA)
Category:	Time-Critical Removal Action

A. Site Description

1. Removal site evaluation

The following sections provide background information on the Site.

a. C& H Power Plant Site

The Site is the former location of a large industrial complex (the Facility) that crushed or "stamped" rock from nearby copper mines to recover copper ore. Stamping operations began at the Site in approximately 1871 and operations ceased in approximately 1968. The Site is bounded to the east by Torch Lake; to the north by the Houghton County Historical Museum, a public park, and a marina; to the south by residential properties; and to the west by Highway M-26.

The Site is located on Highway M-26 on the southern end of the Village of Lake Linden (2011 population approximately 1,091) in Houghton County, Michigan. There are approximately nine houses located directly across Hwy M-26 from the southern portion of the Site, a grocery store and approximately 20 houses located on a u-shaped block within 250 yards of the northern portion of the Site, and approximately six houses within 100 yards of the northwest corner of the Site.

The Site comprises a distinct parcel of property which encompasses approximately 14 acres and contains one dilapidated building; the former power plant building (the Power

Plant). The Site historically contained several primary buildings including the Power Plant, a centrally located boiler house, and the "Hecla" Stamp Mill along the water front. Smaller buildings located north of the Power Plant and boiler house included a "Filter House" and a "Still House." The Site currently contains foundations and floors from these buildings which no longer exist, although remnants of some of the buildings remain. The Site also contains former rock bins and bermed rubble and debris piles. The son of the current owner lives in a mobile home on the Site.

The topography of the Site is relatively flat, with building foundations and debris scattered at various locations. The eastern Site boundary has a steep sloping grade towards Torch Lake, which is approximately twenty feet lower than the ground surface of the center of the Site, and below the elevation of the basement floor of the Power Plant. Groundwater flow in the Site area is unknown; however, based on the proximity of the Site to Torch Lake, EPA presumes that the groundwater flows east toward Torch Lake.

The Power Plant basement is approximately eighteen feet deep, and usually contains water ranging from depths of 4-5 feet to 15 feet. The structural integrity of the Power Plant building is unknown, and there are large holes in its floor which may render it impossible to conduct a proper investigation of the basement absent demolition of the building.

Although it is a former industrial complex, the Site is unsecured and is easily accessed by the general public. Trespassers have been observed accessing the property during multiple Site visits. Further, the property is adjacent to public access points, residential areas, a grocery store, and a historical museum. Vehicle tracks and graffiti provide additional evidence that the Site is being accessed by the public.

b. Ownership Information

EPA currently considers the following entities as potentially responsible parties (PRPs) at the Site:

- Honeywell International Inc. Successor in interest to C&H, which owned and operated the Site at the time of disposal.
- Rudoph G. Kump Past owner
- Louis J. Meneguzzo Past owner
- Meninc, Incorporated Current owner

i. Corporate History from C&H Mining Company to Honeywell

Information gathered by EPA to date indicates the corporate history of the original owner/operator of the Site as follows:

- C&H Mining Company owned and operated the Facility and surrounding property beginning in the late 1800s.

- In 1952, C&H Mining Company reincorporated as Calumet & Hecla, Inc. (C&H Inc.) and continued operating the Facility under that name until the late 1960s.
- On April 30, 1968, Universal Oil Products Company (UOP) merged with C&H Inc., and operated the Facility as a subsidiary, Calumet & Hecla Corp.
- After ending operations at the Site, UOP merged with Calumet & Hecla Corp. on December 31, 1969.
- UOP changed its name to UOP Inc. in July of 1975.
- UOP Inc. changed its name to EMS Holdings, Inc. in November of 1988, which in turn changed its name in January of 1989 to EM Sector Holdings, Inc., a subsidiary of AlliedSignal, Inc.
- On March 30, 1999, EM Sector Holdings, Inc. dissolved, and its liabilities were assumed by a newly formed entity, ASI Specialty Chemicals, LLC (ASI).
- When AlliedSignal, Inc. merged with Honeywell, Inc. in 1999, ASI became a subsidiary of the new entity, Honeywell International, Inc.
- In September of 2002, ASI changed its name to Honeywell Specialty Materials LLC (Honeywell), a wholly-owned subsidiary of Honeywell International Inc.

ii. Property Sales History to Current Owner Meninc

On August 8, 1975, UOP conveyed the Site via an unrecorded quitclaim deed to Rudolph G. Kump for $31,000. Mr. Kump is a 75 year-old resident of nearby Calumet, Michigan, and the owner of Rudy's Lumber and Supply in Calumet. He conveyed the Site for $5,000 on December 17, 1998, to Louis J. Meneguzzo. Mr. Meneguzzo and his wife Sandra own and work at the SuperValu grocery store in Lake Linden. In January of 2000, Mr. Meneguzzo incorporated Meninc, Incorporated (Meninc), a corporation that according to its 2002 annual report, is engaged in "fixing up property and selling it." Sandra Meneguzzo is listed as owner, president, secretary, and treasurer in the Meninc 2007 annual report. Mr. Menguzzo quitclaimed the Site to Meninc on February 16, 2003. On January 28, 2008, Sandra Meneguzzo conveyed her interest in the Site property to Meninc, also through a quitclaim deed. Meninc is an active Michigan corporation.

The Meneguzzos and Meninc commissioned the following environmental assessments as part of their property transactions:

- Phase 2 Environmental Site Assessment (ESA) – January 1999 (Coleman Engineering Company [CEC]).
- Phase 1 ESA – July 1999 (CEC).
- Baseline Environmental Assessment (BEA) – March 2000 (CEC).

c. EPA

At the request of the Michigan Department of Environmental Quality (MDEQ), EPA performed a three-phase site assessment (SA) beginning on April 15, 2010. The SA was composed of the following activities:

- A visual assessment of Site features, and exposed debris and materials;
- An asbestos survey consisting of collecting bulk samples, soil samples, and performing activity-based sampling of air;
- X-ray fluorescence analyzer soil screening for metals;
- A gamma radiation survey to screen for radiological contaminants; and,
- Soil and water sample collections for laboratory analysis for potential contaminants of concern (COC).

The SA indicated the presence of uncontrolled hazardous substances at the Site, including: inorganic COC in surface soils; lead and asbestos-containing materials (ACM) on the surface soil, interior building foundations and exterior debris piles; and, possibile PCB contamination in the water and basement of the Power Plant.

i. April 15, 2010

EPA first conducted a preliminary reconnaissance at the Site on April 15, 2010, to assist in the coordination and implementation of the SA. The visual inspection found miscellaneous debris outside the Power Plant consisting of household waste, commercial appliances, metal drums, building debris, and industrial by-products such as coal, slag, and cinders. The Power Plant interior is covered with dust and also contains debris, including roofing materials and Pyrobar® block. The Power Plant is dilapidated with numerous openings in its floor posing safety concerns. The Power Plant basement was flooded, but investigators determined that it contained miscellaneous building and manufacturing debris, including drums, metal piping, concrete, and wood timbers. EPA did not collect samples at this time.

ii. May 17-19, 2010

On May 17, 2010, EPA began its onsite assessment by performing a preliminary evaluation of ambient air conditions in the Power Plant and the surrounding area, conducting an interior and exterior asbestos survey at the Site, and collecting five surface soil samples. The interior ambient air sampling consisted of collecting four stationary air samples inside the Power Plant, three exterior stationary air samples, and two personal air samples. The sampling results showed that airborne asbestos contamination is likely during future response actions at the Site, and workers should utilize appropriate personal protective equipment.

Because of historical asbestos use at the Site, EPA collected 42 samples of suspected ACM from fourteen areas in the interior of the Power Plant, and 26 exterior samples of suspected ACM. Laboratory analysis of the samples revealed the presence of friable ACM in seven of the 14 areas inside the Power Plant, and in eight of the 26 samples outside of the building. Non-friable ACM was found in one other area inside of the Power Plant, in asphaltic roofing material in the building, and in six exterior samples.

The suspect ACMs which tested positive for asbestos included: Thermal System Insulation (TSI), transite (cementitous material), black tar on bricks, gaskets, asphaltic roofing material, miscellaneous (unidentified) material. Of these suspect ACMs which tested positive for asbestos, the TSI material was the only friable ACM. Of the non-friable ACMs indentified during the Site Assessment, the transite fragments were the only non-friable ACM classified as a potential threat because these non-friable transite fragments may release airborne asbestos fibers if disturbed.

In addition, EPA observed numerous (approximately 200) individual transite fragments on the ground surface in areas along the eastern, southern and central portions of the Site. EPA also sampled four bulk samples of transite and all four transite samples tested positive for asbestos. Although this transite material was non-friable, it may also be rendered friable in the event of normal demolition or heavy equipment removal operations, which is part of the potential response at the Site.

Other suspect ACM which was sampled and tested positive for asbestos included: gaskets, asphaltic roofing material, tar on brick, and miscellaneous material. These ACM's were classified as damaged but non-friable, or a Category I Non-friable ACM. EPA believes that these ACMs will not become friable during heavy equipment removal operations. Therefore these materials would neither impact the surrounding soil nor create an airborne hazard during heavy equipment removal operations, and do not require removal.

The final component of EPA's May 2010 investigation was surface soil sampling. EPA collected five surface soil samples from the Site. Laboratory analysis of the samples revealed that while asbestos was detected in the soil samples, the asbestos percentage was below the 0.1 percent detection limit.

iii. June 16-18, 2010

EPA conducted a focused SA at the Site from June 16-18, 2010, consisting of surface soil screening, gamma radiation screening, soil sampling, and water sampling. The results of the surface soil screening found levels exceeding the Residential Direct Contact Criteria (RDCC) of several inorganic contaminants at the Site, including antimony, copper, and iron.[1] The screening also determined that arsenic and lead are the predominant COC in the Site surface soil. Most of the screening samples exceeding RDCC levels were collected from an area extending east from the Power Plant to the center of the Site,

[1] Although the Site is a former industrial complex, EPA utilized RDCC because the current owner's son lives onsite, and the Site is in close proximity to approximately 35 houses.

although screening samples taken along the northern and southern Site boundaries exceeded RDCC levels.

EPA collected seven surface soil samples at the Site. Laboratory analysis of the samples confirmed the surface soil screening results, with results above RDCC levels for arsenic, lead, antimony, copper, and iron. One sample also detected aluminum in a concentration above the RDCC. However, gamma radiation screening showed that the Site does not contain a significant radiation emission source, and sampling did not show any PCB contamination in the areas sampled.

EPA collected seven water samples at the Site from the basement of the Power Plant for PCB testing. While laboratory analysis of the samples confirmed the presence of PCBs in two samples, the PCB concentrations in both samples were below the MDNRE Part 201 Groundwater Contact Criteria for PCBs.

d. MDEQ

In addition to accompanying EPA during the preliminary reconnaissance at the Site on April 15, 2010, MDEQ has inspected the Site on multiple occasions. In June 1996, MDEQ inspected the Site in response to a complaint related to the dewatering of the building's basement. In a November 1998 letter to MDEQ, Torch Lake Township (the Township) documented that the property was violating the Township Dangerous Buildings Ordinance. In September 1999, MDEQ considered a grant request submitted by the Township to address concerns at the property. Finally, in October 2008, MDEQ conducted limited sampling of environmental media within the Power Plant, including water and sediment.

2. Physical location

The Site is located on Highway M-26 south of the Village of Lake Linden, in Houghton County, Michigan. The geographical coordinates for the Site are latitude 47.1850924 North and longitude, -88.4133392 West. The Site comprises a distinct parcel of property (the Property) which was last surveyed in 2002 (Addendum I). EPA has adopted the legal description of the Property contained in the 2002 survey to establish the boundaries of the Site. The boundaries of the Site are thus defined as:

A parcel of land being part of Government Lot 1 of Section 7, and part of Government Lot 4 of Section Six, Township 55 North, Range 32 West, Torch Lake Township, Houghton County, Michigan, described as follows:

- Commencing at the South one-quarter (S¼) corner of Section 6, Township 55 North, Range 32 West,
- thence North 75 degrees, 13 minutes, 16 seconds East, 93.67 feet to a point on the Easterly Right-of-Way of State Highway M-26 (66' Wide), point also being the Point of Beginning;

- thence North 16 degrees, 22 minutes, 50 seconds along the Easterly Right-of-Way of said State Highway M-26 (66' Wide), a distance of 144.36 feet;

- thence along the Easterly Right-of-Way of said State Highway M-26 (66' Wide), on a curve to the right, having a radius of 187.08 feet, a central angle of 11 degrees, 48 minutes, 12 seconds, a chord distance of 386.01 feet, a chord bearing of North 22 degrees, 17 minutes, 01 seconds East, a distance of 386.69 feet, to the South line of the Houghton County Historical Society property South 70 degrees, 33 minutes, 55 seconds East, a distance of 154.03 feet;

- thence continuing along the South line of the Houghton County Historical Society property North 19 degrees, 25 minutes, 57 seconds East, a distance of 99.98 feet;

- thence continuing along the South line of the Houghton County Historical Society property South 70 degrees, 33 minutes, 55 seconds East, a distance of 528.13 feet to a meander corner on the short of Torch Lake;

- thence South 37 degrees 28 minutes, 48 seconds West, along the meander line of Torch Lake, a distance of 773.86 feet;

- thence South 45 degrees, 15 minutes, 23 seconds West, along the meander line of Torch Lake , a distance of 277.74 feet;

- thence North 68 degrees, 03 minutes, 18 seconds West, a distance of 354.92 feet to a point along the Easterly Right-of-Way of State Highway M-26 (66' wide);

- thence along the Easterly Right-of-Way of State Highway M-26 (66' wide), on a curve to the left, having a radius of 1469.69 feet, a central angle of 13 degrees, 22 minutes 16 seconds, a chord distance of 341.27 feet, a chord bearing of North 23 degrees, 04 minutes, 03 seconds East, a distance of 342.05 feet to the Point of Beginning.

- The above-described parcel contains 11.60 acres more or less, and it is subject to any and all reservations, restrictions, easements and prior conveyances of record.

- It being expressly understood and intended that the above- described parcel extends to the water's edge of Torch Lake.

The Site area surrounding the Power Plant was screened for Environmental Justice (EJ) concerns using Region 5's EJ Assist Tool (which applies the interim version of the national EJ Strategic Enforcement Assessment Tool [EJSEAT]). Census tracts with a score of 1, 2, or 3 are considered to be high-priority potential EJ areas of concern according to EPA Region 5. The Site is in a census tract with an average score of 10 (Attachment II). Therefore, Region 5 does not consider this Site to be a high-priority potential EJ area of concern. Please refer to the attached analysis for additional information.

3. Site characteristics

EPA's START contractor prepared a SA Report for the Site that is part of the Administrative Record. Analytical results are summarized in data tables within the SA Report for the Site, providing documentation of the presence of hazardous substances.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

Widespread bulk ACM contamination has been detected throughout the Site and inside the Power Plant, including friable ACM in seven of the 14 areas inside the Power Plant, and in eight of the 26 samples outside of the building. Non-friable ACM was found in one other area inside of the Power Plant, in asphaltic roofing material in the building, and in six exterior samples. Asbestos fibers have also been detected in surface soil and air samples. Contaminated soils contain concentrations of arsenic, antimony, copper, iron, and lead that are greater than MDNRE Part 201 RDCC. PCBs have also been detected in the water in the basement of the Power Plant.

5. NPL status

The Site is not listed on the National Priorities List.

6. Maps, pictures and other graphic representations

Figure A-1 Site Location Map, Figure A-2 Site Layout Map, Figure A-3 Photographs, and Attachment II - Environmental Justice (EJ) analysis are included as attachments.

B. Other Actions to Date

1. Previous actions

In 2007, EPA conducted a Torch Lake Area Assessment Summary (Torch Lake AA), which focused on 17 Areas of Investigation (AOI) identified jointly by U.S. EPA and MDEQ that were impacted by historical copper mining operations in the Keweenaw Peninsula. The AA included portions of the Torch Lake NPL Site where stamp sands are the primary media of concern. The purpose of the Torch Lake AA was to determine if imminent and substantial threats existed and to make recommendations on the need for further assessment.

On September 5, 2007, EPA performed reconnaissance and XRF screening activities at AOI 23 (the Power Plant AOI). Mr. Menneguzzo was present during the AA within the building and provided information to EPA regarding the Site. Mr. Menneguzzo stated that all ACM was removed from the building with the exception of the roofing material. In addition, Mr. Menneguzzo stated that the transformers located on the west side of building had been removed and soil sampling verification occurred following their removal. The owner refused to allow sample collection during the AA, but did permit real-time screening with the XRF unit.

The Torch Lake AA resulted in EPA recommending for AOI 23 the following actions: characterizing the sludge and water in the basement and the drums in the basement to determine proper management of any COC; removing the bags of copper concentrate near the shoreline; reviewing the soil data collected after the removal of transformers containing PCBs, and conducting additional soil sampling if necessary; that MDEQ issue the owner a due care letter to complete the removal of ACM; and addressing lead-based paint prior to any demolition or re-construction activities.

2. Current actions

None.

C. State and Local Authorities' Roles

In 2009, the State of Michigan requested assistance from EPA in conducting a potential time-critical removal action involving uncontrolled hazardous waste at the Site. MDEQ and local township officials have both accompanied EPA during Site reconnaissance activities and have expressed interest in monitoring future activities.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

The conditions at the Site present an imminent and substantial threat to the public health or welfare, and the environment, and meet the criteria for a time-critical removal action

provided for in Section 300.415(b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). These factors include, but are not limited to, the following:

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

Bulk ACM contamination was identified across the exterior of the Site and within the Power Plant. Asbestos fibers were also identified in surface soil and air samples collected at the Site. Analytical results demonstrate the presence at the Site of Category I Non-friable ACM, Category II Non-friable ACM, RACM, and ACWM which contain greater than 1% asbestos. Contaminated soils, primarily east of the Power Plant extending to the shore of Torch Lake, contain concentrations of arsenic, antimony, copper, iron, and lead that are greater than MDNRE Part 201 RDCC.

Inorganic COC and ACM contamination at the Site pose immediate threats to human health and the environment. Human and biological receptors are present from foot traffic, off-road vehicle traffic, and animal behavior in the vicinity of the Site. Potential receptors outside of the Site could be exposed to Site-related contaminants through the erosion of surface soils by both weather (including contaminated surface water runoff), and traffic by animals and humans in the area. These mechanisms could transport contaminated soil from the Site and increase the potential for exposure outside of the investigation limit.

The Site is unrestricted and EPA's Superfund Technical Assessment and Response Team (START) has been informed of unauthorized personnel riding ATV's on Site. Also, the present owner has staged equipment and vehicles on Site. Activities from unauthorized personnel and the present owner are conducted within the areas of the Site in which transite fragments were identified. As a result, EPA finds that a potential threat exists from the disturbance of the non-friable transite fragments. The time-critical removal action should therefore include the initial removal of all friable ACMs and all non-friable ACMs because they are likely to be disturbed during response actions.

Although the Site is a former industrial complex, EPA utilized RDCC because the current owner's son lives onsite, and the Site is in close proximity to approximately 35 houses.

Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.

EPA has identified debris materials in the flooded basement of the Power Plant, including drums (both floating and sunken), metal piping, concrete, wooden timbers, and similar building. While analysis of water samples has found the presence of PCBs at low levels in the Power Plant basement, the deteriorated condition of the Power Plant has prevented EPA from conclusively determining whether the drums and piping in the flooded basement contain hazardous substances. If the basement materials are in fact contaminated, further deterioration of these drums and piping could allow additional quantities of hazardous substances to migrate into the environment through the exodus of

the water from the basement, or from trespassers accidentally or intentionally releasing hazardous materials in the drums and containers in the basement, or coming into contact with any hazardous materials.

High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate.

Laboratory analysis of surface soils and debris piles show concentrations of the inorganic COC arsenic, antimony, copper, iron, and lead that are greater than MDNRE Part 201 RDCC, and ACM containing greater than 1% asbestos. The COC and ACM pose a serious migration threat to Torch Lake based on their location, the topography sloping towards Torch Lake and the proximity of the COC and ACM to Torch Lake. The COC and ACM may also migrate through human and animal foot traffic through the Site, thus transporting contaminated soil from the Site.

Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

Houghton County has an average annual snowfall of approximately 200 inches per year. Seasonal snowmelt results in the erosion and transport of surface soils. In addition, the Site is located along the shoreline of Torch Lake and is unprotected from winds blowing from the lake. Weather conditions, specifically as they relate to the erosive forces of wind and water, will continue to contribute to the deterioration of the Power Plant building and the potential migration of contaminated surface soil at the Site. Rainfall also replenishes the water in the Power Plant basement, potentially causing the migration of the water and hazardous substances contained therein.

Threat of fire or explosion.

Despite the fact that all electrical power and natural gas have been shut off at the Site, the threat of fire or explosion is moderate because of unrestricted Site access and potential trespassing. As temperatures decrease in autumn and winter, the potential increases for trespassers to enter the Power Plant and start fires for warmth. A fire could produce toxic gases, irritants, and if extinguished, could also produce runoff of contaminated fire-water.

The availability of other appropriate federal or state response mechanisms to respond to the release.

In 2009, the State of Michigan requested EPA involvement at the Site to analyze the on-site threats to human health and the environment. Michigan also requested that EPA perform a response action if appropriate based on the onsite hazardous conditions analysis. MDEQ also does not have the resources to conduct the potential response action for the Site, thus illustrating the need for federal involvement to address the imminent endangerment posed by the Site. MDEQ therefore, has fully supported and initiated EPA's efforts to mitigate the threats to public health, welfare, and the environment at the Site.

Other situations or factors that may pose threats to public health or welfare of the United States or the environment.

Physical hazards are also a factor at the Site. The exterior of the Power Plant is dilapidated and historical file information indicates that local citations have been issued due to "Dangerous Conditions" at the property. The continued degradation of the Power Plant results in further destruction and dispersion of Category I Non-friable ACM, primarily in the form of asphaltic roofing material.

In addition to the Power Plant, there are also multiple foundations and floors across the Site. The remnants of the former boiler house, the former still house, the former filter house, and the former Hecla stamp mill at the Site present various physical hazards related to terrain and subsurface conduits beneath the former buildings. EPA has not yet investigated these structures due to the existence of more immediate, documented threats at the Site. EPA has, however, determined that these substructures have been impacted by erosion, transport, and deposition.

IV. ENDANGERMENT DETERMINATION

Given the Site conditions, the nature of the hazardous substances onsite, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

There is an imminent and substantial endangerment to the local public health or welfare, and the environment from the presence of arsenic, antimony, copper, iron, and lead in soil samples at levels greater than MDEQ Part 201 RDCC, and of ACM in samples from throughout the Site containing greater than 1% asbestos, including exposed friable ACM located outside of the Power Plant in the open environment.

V. PROPOSED ACTIONS

A. Proposed Actions

1. Proposed action description

The OSC proposes to undertake the following response actions to mitigate threats posed by the presence inorganic COCs and ACM in surface soils at the Site:

1. Develop and implement a Site-specific Health and Safety Plan, including an Air Monitoring Plan and a Site Emergency Contingency Plan;

2. Develop and implement a Site Security Plan, including the installation of perimeter fencing to limit access to the Site;

3. Perform additional activity-based air sampling to determine exposure potential under various scenarios presently conducted at the Site and during cleanup activities.

4. Remove soil contaminated with inorganic COCs at concentrations that exceed the Part 201 RDCC and removing ACM in the open areas of the Site. The area is approximately 255,135 square feet (ft^2);

5. Remove visible ACM contamination (TSI, transite, and miscellaneous debris) distributed on the ground surface and Site features, not limited to building foundations and debris piles;

6. Abate asbestos contamination within the Power Plant building threatens release to the environment or is necessary to complete other removal actions. This will include the removal of ACM and ACWM on the interior and exterior of the building. The abatement activities would also include high-pressure rinsing and collection of wastewater on the interior surfaces of the building;

7. Document conditions during the removal action to assess the potential for additional COC and ACM contamination vertically in soils in the open areas of the Site;

8. Dispose of contaminated soil, ACM, water contaminated with hazardous substances, pollutants, or contaminants above maximum contaminant levels (MCL), and any other hazardous substances, pollutants or contaminants, off-site at a EPA-approved disposal facility in accordance with the U.S. EPA Off-Site Rule (40 C.F.R. § 300.440); and

9. Perform additional work if U.S. EPA or Honeywell determines that it is necessary to protect human health or the environment pursuant to the authority granted by the NCP to U.S EPA and the OSC. The additional work shall not require the remediation of contamination already existing in Torch Lake, including any contamination in the water or sediments.

The removal action will be conducted in a manner not inconsistent with the NCP.

The OSC has initiated planning for the provision of post-removal site controls consistent with the provisions of Section 300.415(l) of the NCP.

The removal action will be conducted in a manner to obtain and preserve information and evidence which may be of use to a civil or criminal investigation of the Site.

It is anticipated that the activities described above will be completed by one or more responsible parties pursuant to an Administrative Order on Consent (AOC).

2. Contribution to remedial performance:

The proposed action will not impede future actions based on available information. At this time it is not anticipated that long-term remedial actions will be needed for the Site.

3. Applicable or relevant and appropriate requirements (ARAR)

All applicable or relevant and appropriate requirements (ARARs) of Federal and state law will be complied with to the extent practicable. On September 15, 2011, a letter was sent to Ms. Amy Keranen, of the MDEQ, requesting that the state identify any applicable state ARARs. Any state ARARs identified in a timely manner for this removal action will be complied with to the extent practicable.

All hazardous substances, pollutants or contaminants removed off-site pursuant to this removal action for treatment, storage and disposal shall be treated, stored, or disposed at a facility in compliance, as determined by EPA, with the EPA Off-Site Rule, 40 C.F.R. § 300.440.

4. Asbestos Considerations

In compliance with the *Framework for Investigating Asbestos-Contaminated Superfund Sites,* EPA implemented the following step-by-step approach outlined in the framework document to investigate and characterize the potential for human exposure from asbestos contamination in outdoor soil and indoor dust at the Site.

A review of historical information indicated that ACMs were used in the construction and the operation of the Power Plant. As a result, ACM building debris and ACMs were observed in and around the Power Plant.

Activity based sample results from walking and raking activities showed definite release of airborne asbestos fibers in both indoor and outdoor sampling scenarios. Bulk soil sampling indicated that surface soils have been impacted by damaged ACM. Future land use at the Site potentially includes the development of commercial and residential properties.

Based on the factors outlined above, EPA recommends that a removal be performed to mitigate asbestos exposure at the Site.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed or no action will result in the increased potential for release of toxic and hazardous substances, thereby threatening human health and welfare and the environment.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

The PRP, Honeywell Specialty Materials LLC, signed an AOC on 3/26/2012 agreeing to perform the work described in the Proposed Actions section of this AM.

For administrative purposes, further information concerning the enforcement strategy for this Site is contained in the confidential Enforcement Addendum.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Calumet & Hecla, Inc. Power Plant Site at 5371 Highway M-26 in Lake Linden, Torch Lake Township, Houghton County, Michigan, developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based upon the Administrative Record for the Site. Conditions at the Site meet the NCP Section 300.415(b) criteria for a removal, and I recommend your approval of the proposed removal action.

APPROVE Richard C Karl **DATE:** 5-21-12
Director, Superfund Division

DISAPPROVE _____ **DATE:** _____
Director, Superfund Division

Figures:

- A-1 Site Location Map
- A-2 Site Layout Map
- A-3 Photographs

Attachments:

I. Administrative Record Index
II. Region V EJ Analysis
III. Enforcement Addendum

cc: S. Fielding, U.S. EPA, 5302-G
(Email: Sherry Fielding/DC/USEPA/US)
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BCC PAGE

(REDACTED 1 PAGE)

ENFORCEMENT ADDENDUM

ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY

FOIA EXEMPT

FORMER CALUMET & HECLA POWER PLANT SITE
LAKE LINDEN, HOUGHTON COUNTY, MICHIGAN

MARCH 2012

(REDACTED 4 PAGES)

ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY

FIGURE A-1

SITE LOCATION MAP

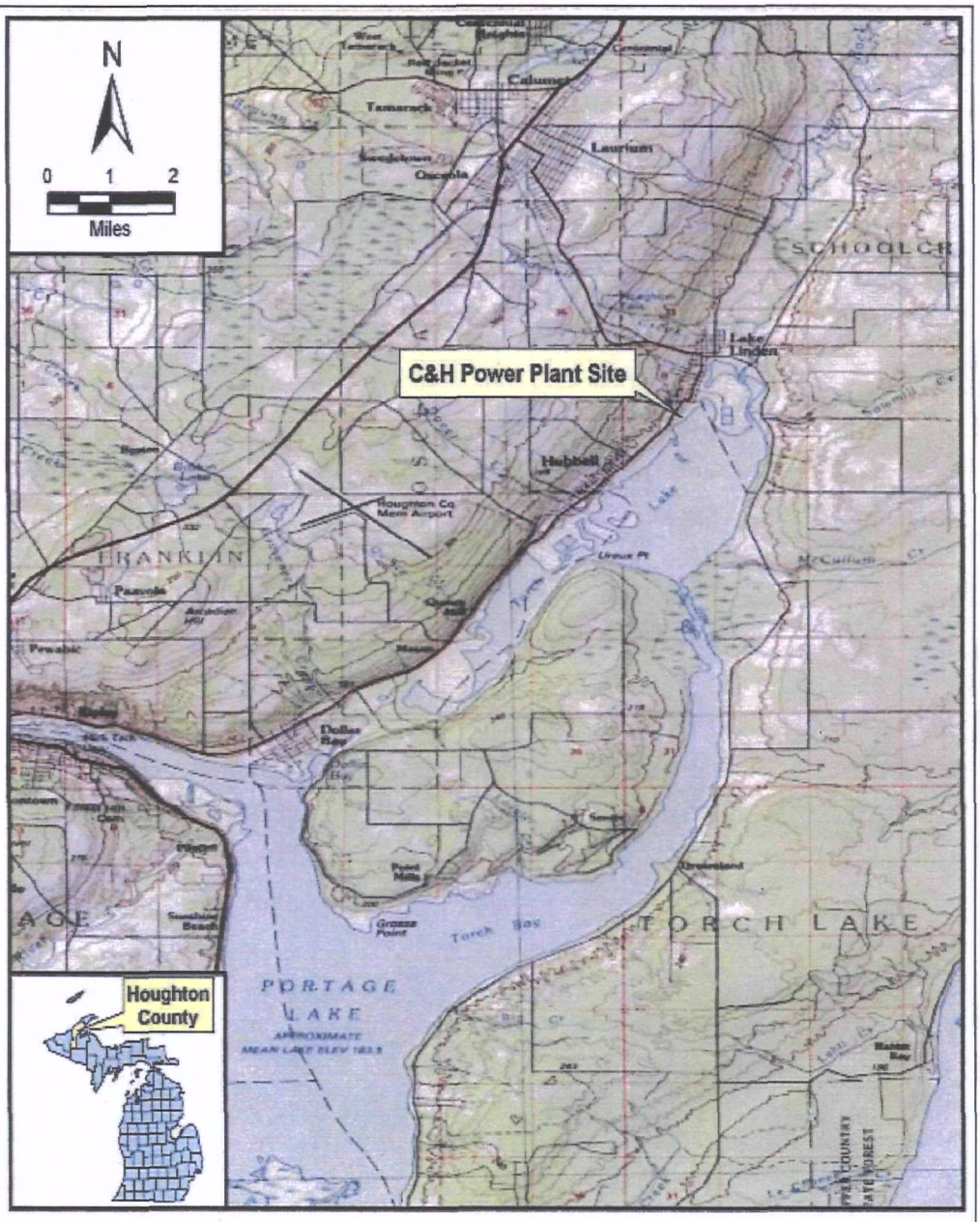


Figure 2-1

Prepared for: **U.S. EPA REGION V** Contract No: EP-S5-06-04 TDD No.: S05-0001-1003-030 DCN: 988-2A-AHLZ	Prepared by: **WESTON SOLUTIONS, INC.** 600 E. Lakeshore Dr., Ste 200 Houghton, MI 49931	**SITE LOCATION MAP** C & H POWER PLANT SITE LAKE LINDEN, HOUGHTON CO., MICHIGAN Created: July 2010

FAL P:\Current\WES1006\GIS\Maps\Site_Location.mxd

FIGURE A-2

SITE LAYOUT MAP

Legend

- Historical Buildings
- Berms
- Approximate Property Boundary

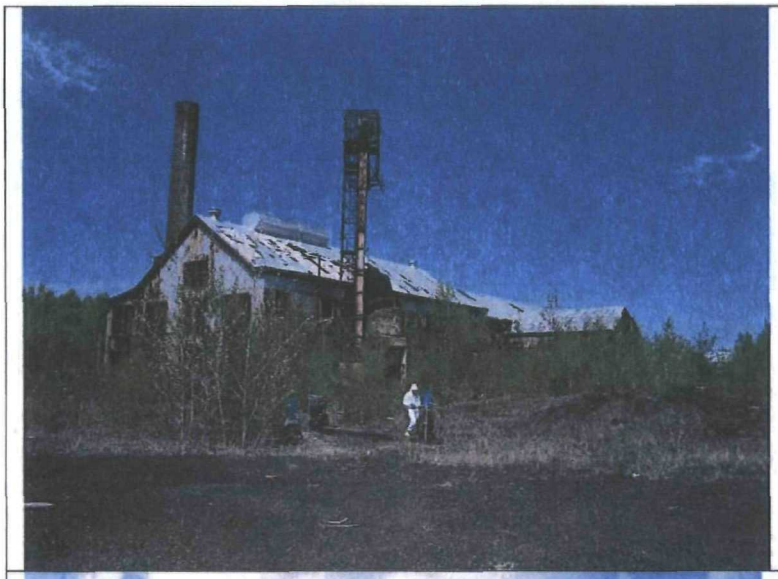
PAL P:\Current\WESTCOR\GIS Maps\Site_Layout_Map.mxd

Figure 2-2

Prepared for: U.S. EPA REGION V Contract No: EP-S5-06-04 TDD No.: S05-0001-1003-030 DCN: 988-2A-AHLZ	Prepared by: WESTON SOLUTIONS, INC. 600 East Lakeshore Drive, Suite 200 Houghton, MI 49931	SITE LAYOUT MAP C & H POWER PLANT SITE LAKE LINDEN, HOUGHTON CO., MICHIGAN Created: July 2010

FIGURE A-3

PHOTOGRAPHS



Number	1
Description	Exterior of the power plant building with collapsed coal silo.
Photographer	START
Date	5/20/2010

Number	2
Description	Exterior of the power plant building with collapsed coal silo to the right of the photograph.
Photographer	START
Date	4/15/2010

Number	4
Description	Flooded basement of the power plant building.
Photographer	START
Date	4/15/2010

Number	4
Description	Dilapidated drum in the basement of the power plant building.
Photographer	START
Date	4/15/2010

Number	5
Description	Interior of the power plant building.
Photographer	START
Date	4/15/2011

Number	6
Description	Transite fragments on the ground surface.
Photographer	START
Date	5/20/2011

ATTACHMENT I

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL ACTION

ADMINISTRATIVE RECORD
FOR
C&H POWER PLANT SITE
LAKE LINDEN, HOUGHTON COUNTY, MICHIGAN
MARCH 2012

DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
00/00/00	Monette, C., Author	File	Photographic Excerpts from Lake Linden's Yesterday: a Pictorial History, vols. 1 and 2	9
00/00/00	Environmental Data Resources, Inc.	U.S. EPA	Sanborn Insurance Maps (1900-1954) Calumet Hecla Plant	18
00/00/00	Environmental Data Resources, Inc.	U.S. EPA	Aerial Photographs (1954-2005) Calumet Hecla Power Plant	8
00/00/31	Bosson, F., Calumet & Hecla Consolidated Copper Company	File	Company Article: "Electric Power Distribution"	2
10/00/31	McIntosh, R. & A. Burgan, Calumet & Hecla Consolidated Copper Company	File	Company Article: "Electric Power Generation"	8
00/00/54	Calumet & Hecla Power Plant		C&H Insurance Map (Partial) Plan View and Simple Cross Sections of Power House	1
04/17/00	Polich, J., Coleman Engineering Company	Clark, C., MDEQ	Baseline Environmental Assessment for the Former Power Station and Copper Ore Processing Facilities	198
12/13/07	Weston Solutions, Inc.	U.S. EPA	Summary Report for the Torch Lake Area Assessment	400
10/00/08	MDEQ Environmental Laboratory	File	MDEQ Analytical Reports from 2008 Sampling Event Inside Power Plant Facility	29

DATE	AUTHOR	RECIPIENT	TITLE/DESCRIPTION	PAGES
04/02/10	Environmental Data Resources, Inc.	U.S. EPA	Environmental Radius Map Report - Calumet Hecla Power Plant Site	64
04/02/10	Environmental Data Resources, Inc.	U.S. EPA	Historical Topographical Map Report - Calumet Hecla Power Plant Site	5
04/12/10			Outline/Summary of Existing Information Related to Environmental Activities Performed at the C&H Power Plant Site (DRAFT)	4
12/07/10	Weston Solutions, Inc.	U.S. EPA	Site Assessment Report for the Calumet and Hecla Power Plant Site	225
09/15/11	Dollhopf, R., U.S. EPA	Keranen, A., MDEQ	Letter re: U.S. EPA Request that MDEQ Identify all ARARs for the Proposed Removal Action at the Former Calumet and Hecla Power Plant Site	1
00/00/00	Dollhopf, R., U.S. EPA	Karl, R., Enforcement Action U.S. EPA	Memorandum: Determination of Threat to Public Health and the Environment and Selection of Time-Critical Removal Action at the Former Calumet and Hecla (C&H) Power Plant Site (PENDING)	

ATTACHMENT II

R5 SUPERFUND EJ ANALYSIS FOR THE C&H POWER PLANT SITE

The area surrounding the Former C & H Power Plant Site (Site) was screened for Environmental Justice (EJ) concerns using Region 5's EJ Assist Tool (which applies the interim version of the national EJ Strategic Enforcement Assessment Tool (EJSEAT)). Census tracts with a score of 1, 2, or 3 are considered to be high-priority potential EJ areas of concern according to EPA Region 5. The Site is in a census tract with a score of 10 (Figure 1). Therefore, Region 5 does not consider this Site to be a high-priority potential EJ area of concern.

Figure 1
Former C & H Power Plant Site Map Showing EJ SEAT Values For Surrounding Area